Does rock size have a significant impact on CO_2 capture capacity?

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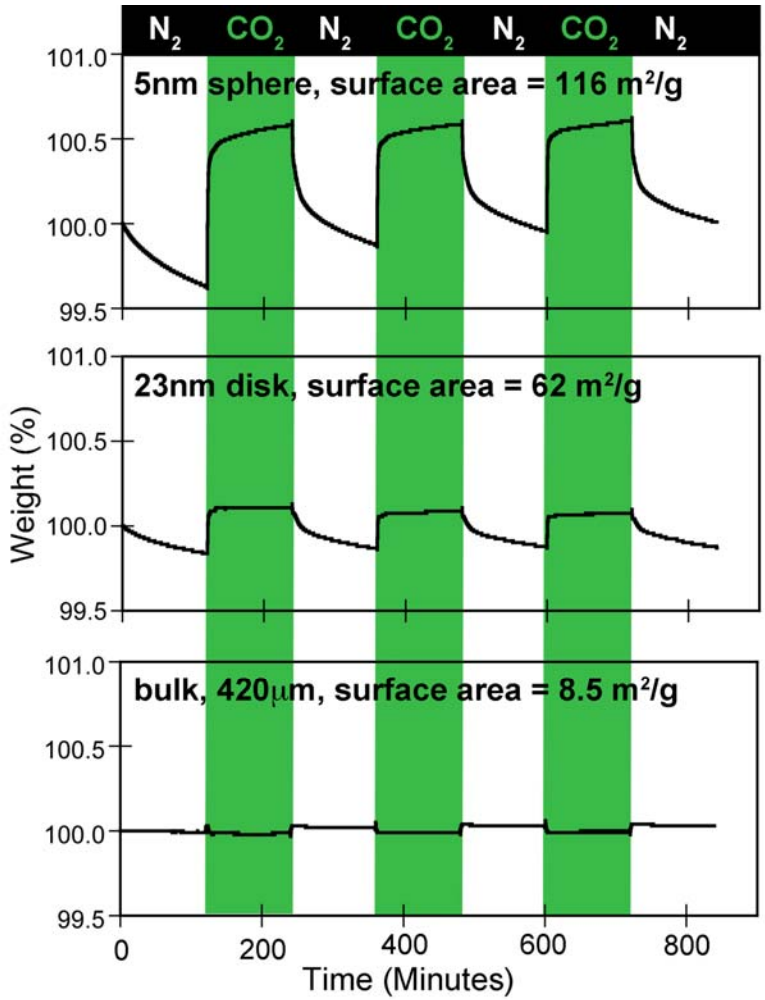
EFRC: Nano-scale control of Geologic CO_2



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- Basic metal oxides have previously shown high CO_2 gas adsorption involving chemisorption. Can this adsorption be controlled and enhanced at the nanoscale level?
- The carbon dioxide storage capacity of magnesium oxide materials was examined as a function of particle size, shape, and surface area.
- Thermogravimetric analysis (Figure) of magnesium oxide materials cycled between pure N_2 and CO_2 environments clearly showed enhanced CO_2 capacity (larger % weight gain upon adsorption) with smaller magnesium oxide particles having larger surface area.